U.S. Patent and Trademark Office. U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. Attorney Docket No. 500.43232X00 UTILITY PATENT APPLICATION TAKAO, KUNIHIKO First Inventor TRANSMITTAL PUMP FOR LIQUID CHROMATOGRAPH (Only for new nonprovisional applications under 37 CFR 1.53(b)) Express Mail Label No. Mail Stop Patent Application **APPLICATION ELEMENTS** Commissioner for Patents ADDRESS TO: SEE MPEP chapter 600 concerning utility patent application contents. P.O. Box 1450 Alexandria VA 22313-1450 1. Fee Transmittal Form (e.g., PTO/SB/17) CD-ROM or CD-R in duplicate, large table or (Submit an original and a duplicate for fee processing) Computer Program (Appendix) 8. Nucleotide and/or Amino Acid Sequence Submission Applicant claims small entity status. fif_applicable, all necessary) See 37 CFR 1.27. a. Computer Readable Form (CRF) b. Specification Sequence Listing on: 3. X [Total Pages: 21] Specification i. . D CD-ROM or CD-R (2 copies); or (preferred arrangement set forth below) -Descriptive title of the invention ii. . 🔲 paper -Cross Reference to Related Applications -Statement Regarding Fed sponsored R & D c. Statements verifying identity of above copies -Reference to sequence listing, a table, or a computer program listing appendix -Background of the Invention **ACCOMPANYING APPLICATION PARTS** -Brief Summary of the Invention Assignment Papers (cover sheet & documents(s)) -Brief Description of the Drawings (if filed) -Detailed Description 37 CFR 3.73(b) Statement Power of Attorney -Claim(s) (when there is an assignee) -Abstract of the Disclosure English Translation Document (if applicable) 4. 🕅 Drawing(s) (35 U.S.C. 113) [Total Sheets: 9] Information Disclosure Copies of IDS Citations Statement (IDS)/PTO-1449 5. Oath or Declaration [Total Sheets: _ **Preliminary Amendment** Newly executed (original or copy) 14. 🛛 Return Receipt Postcard (MPEP 503) Copy from a prior application (37 CFR 1.63 (d)) (Should be specifically itemized) (for continuation/divisional with Box 18 completed) Certified Copy of Priority Document(s) i. DELETION OF INVENTOR(S) (if foreign priority is claimed) Signed statement attached deleting inventor(s) 16. Nonpublication Request under 35 U.S.C. 122 Named in the prior application, see 37 CFR (b)(2)(B)(i). Applicant must attach form PTO/SB/35 1.63(d)(2) and 1.33(b) or its equivalent. Other: Figs. 1-9, Credit Card Payment Form, Claim Application Data Sheet. See 37 CFR 1.76 For Priority Letter, Information Disclosure Sheet Under 37 CFR 1.56 w/refs 18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76: Continuation _ Divisional Continuation-in-part (CIP) of prior application No.: Prior application information: Examiner: _ Art Unit: For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts. 19. CORRESPONDENCE ADDRESS Customer Number 020457 Correspondence address below Name ANTONELLI, TERRY, STOUT & KRAUS, LLP Address City State Zip Code Country Telephone (703) 312-6600 (703) 312-6666 Registration No. (Attorney/Agent) Name (Print/Type) Carl I. Brundidge 29,621 Signature Date October 30, 2003

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

The 180 a Assignment

PTO/SB/17 (10-03)

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. Complete if Known **FEE TRANSMITTAL** Application Number October 30, 2003 for FY 2004 Filing Date irst Named Inventor TAKAO, KUNIHIKO Examiner Name Effective 10/01/2003. Patent fees are subject to annual revision. Art Unit Applicant claims small entity status. See 37 CFR 1.27 Attorney Docket No. 500.43232X00 TOTAL AMOUNT OF PAYMENT (\$) 810.00 METHOD OF PAYMENT (check all that apply) FEE CALCULATION (continued) ☐ Other ☐ Check □ Credit Card ☐ Money □ None 3. ADDITIONAL FEES Order Deposit Account: Deposit arge Entity , Small Entity Account 01-2135 Number Fee Paid ee Fee Fee Fee Deposit Code (\$) Code (\$) Fee Description Antonelli, Terry, Stout & Kraus, LLP Account 1051 130 2051 Surcharge - late filing fee or oath The Director is authorized to: (check all that apply) 1052 50 2052 25 Surcharge - late provisional filing fee or ☐ Charge fee(s) indicated below ☐ Credit any overpayments cover sheet 1053 130 Non-English specification 1053 130 Charge any additional fee(s) during the pendency of this application. 1812 2.520 1812 2,520 For filing a request for ex parte reexamination Charge fee(s) indicated below, except for the filing fee 1804 920* 1804 Requesting publication of SIR prior to to the above-identified deposit account. Examination action **FEE CALCULATION** 805 1,840 1805 1,840*Requesting publication of SIR after Examiner action **BASIC FILING FEE** 2251 1251 110 55 Extension for reply within first month **Entity Small Entity** Large Fee Fee Fee Fee Description 1252 2252 420 Fee 210 Extension for reply within second month Fee Paid Code Code (\$) 1253 950 2253 Extension for reply within third month 770.00 1001 770 2001 385 Utility filing fee 1254 1.480 2254 Extension for reply within fourth month 1002 340 2002 170 Design filing fee 255 2 010 2255 1,005 Extension for reply within fifth month 1003 530 2003 265 Plant filing fee 401 330 2401 165 Notice of Appeal 1004 770 2004 385 Reissue filing fee 402 330 2402 165 Filing a brief in support of an appeal 1005 2005 | 80 Provisional filing fee 160 1403 290 2403 145 Request for oral hearing SUBTOTAL (1) 1451 1,510 1451 1,510 Petition to institute a public use proceeding 770.00 1452 110 2452 55 Petition to revive - unavoidable 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE 1,330 1453 2453 665 Petition to revive – unintentional Fee from 2501 Fee Paid 1501 1.330 665 Extra Claims Utility issue fee (or reissue) 1502 480 2502 240 -20** = 0 Design issue fee Total Claims 10 x 18 0 1503 640 2503 320 Plant issue fee Indep. -3** = 0 x 86 0 Claims 1406 130 1460 Petitions to the Commissioner 130 Multiple Dependent 290 1807 50 1807 50 Processing fee under 37 CFR 1.17(a) Large Entity∎ Small Entity 1806 1806 180 Submission of Information Disclosure Stmt 180 Fee Fee Description 8021 40 8021 40 Recording each patent assignment per Code Code (\$) (\$) property (times number of properties) 1202 18 2202 Claims in excess of 20 1809 770 2809 385 Filing a submission after final rejection 1201 86 2201 43 Independent claims in excess of 3 (37 ČFR § 1.129(a)) 1203 290 2203 145 Multiple dependent claim, if not paid 1810 770 2810 For each additional invention to be 1204 86 2204 43 ** Reissue independent claims examined (37 CFR § 1.129(b)) over original patent 1801 770 2801 385 Request for Continued Examination (RCE) 1205 18 2205 9 Reissue claims in excess of 20 and over original patent 1802 900 1802 900 Request for expedited examination of a design application SUBTOTAL (2) \$[0.00 Other fee (specify) *or number previously paid, if greater; For Reissues, see above. Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 40.00

SUBMITTED BY	-	Complete (if applicable)				
Name (Print/Type)	Carl I. Brypdidge	Registration No. (Attorney/Agent)	29,621	Telephone	703-312-6600	
Signature	1			Date	10/30/2003	

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